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WASHTENAW COUNTY HISTORICAL SOCIETY—Founded December 19, 1857 **FEBRUARY**

WASHTENAW IMPRESSIONS

PRESIDENT'S CORNER

We are very pleased to announce that Alice Ziegler has been elected to the board of directors of the Washtenaw County Historical Society, replacing Mary Steffek. Alice, of course, is the one who has been doing such a great job as editor of the *Washtenaw Impressions.*

It was with regret that we accepted the resignation of Mary Steffek. Mary contributed a great deal of her time to the Association on the annual Catherine Groomes Plant Sale and refreshments for our meetings among other things. Thank you, Mary.

I have never stepped onto a covered bridge, but after our last meeting I am determined that I shall. Claire Hoedeman presented some very interesting information on the subject and had a great number of four color mounted photos of covered bridges and other memorabilia for us to pore over. A very interesting meeting.

Thomas F. Lacy

Roses are red,
Violets are blue,
Dues are due,
And we need you.

Membership dues are now due for 1977 in the Washtenaw County Historical Society and Membership Chairman Rosemary Whelan hopes to hear from everyone.

The dues are still $3 per year per person or $6 for "Mr. and Mrs." memberships.

Mrs. Whelan plans to notify all members by letter this month. If you have changed your address or have an unlisted phone so that she is unable to verify your address, she would appreciate a call at 971-5315.

SPEAKER TO TRACE MAJOR EVENTS OF PAST 600 YEARS, THEIR EFFECTS ON ONE FAMILY, TOTAL SOCIAL CLIMATE

Major historical events of the past 600 years will be traced as they touched one man's family at the February meeting of WCHS at 8 p.m., Thursday, February 24, in Liberty Hall at Ann Arbor Federal Savings, Liberty and Division Streets, Ann Arbor.

The speaker is Ralph Muncy, founder of the Genealogical Section of WCHS, and a descendant of the Congdon family who were among the founders of Chelsea. He calls his talk, "Traveling Tangled Trails, 600 Years in 60 Minutes."

On this historical journey he hopes to lay the groundwork for a better understanding of the social climate of today, he said. The story begins with Henry Minor, knighted by King Edward III in the 14th century.

Please note, the meeting will be the 24th, not the 27th as mistakenly printed in the last issue. Apologies from the editor.

HISTORICAL HAPPENINGS AROUND THE COUNTY

CHELSEA HISTORICAL SOCIETY – 8:00 p.m. Monday, March 14, at Chelsea Congregational Church. Demonstration of how to do an oral history interview by Lydia Muncy interviewing Harold Jones is tentatively scheduled.

DEXTER HISTORICAL SOCIETY – Annual arts and crafts fair will be from 10 to 4 p.m., Saturday, March 19, at Dexter High School. There will be demonstrations and sale of a variety of crafts including pierced tin, rubbings, carved wild fowl and birds, chair caning, quilt and candlemaking and oil painting. Lunch will be served at noon.

MILAN HISTORICAL SOCIETY – Meets third Wedesday of month at 7:30 p.m. at the Milan Community House.

SALEM HISTORICAL SOCIETY – Stuart Thayer, WCHS vice-president and former chairman of the Washtenaw County Historic District Commission, will talk about the commission's survey of historical buildings at 7:30 p.m., Monday, February 21, at the Salem Township Hall.

The March 21 meeting will feature a speaker from Greenfield Village discussing high-wheeled bicycles at 7:30 p.m. at the hall.

SALINE HISTORICAL SOCIETY – 8 p.m., Tuesday, March 15, in the Blue Lounge of Saline High School. Slide show on bicentennial wagon train planned.

YPSILANTI HISTORICAL SOCIETY – Easter egg decorating and growing your own herbs will be topics of demonstrations and displays at the Ypsilanti Historical Museum in March.

Easter egg decorators will show their techniques and results Sunday, March 20, from 2 to 4 p.m. Mrs. Arthur Howard of the Garden Club and the herb group at the Matthai Botanical Gardens will be on hand to talk about herbs from 2 to 4 p.m. Saturday, March 26.

WYSTAN STEVENS TO SPEAK

Wystan Stevens, Ann Arbor historian, will speak at the March 24th WCHS meeting in Liberty Hall. His topic is to be announced.

MANY 100 YEARS OLD

KISSIN' BRIDGES NOW FISHIN' BRIDGES

What does a modern highway engineer do when he goes on vacation? At least one local engineer seeks out covered bridges to add to his "collection".

He is Clare Hoedeman, chief enigneer with the Washtenaw County Road Commission who shared some of his pictures and information at the January WCHS meeting. Even the shirt he wore had covered bridges on it.

He exhibited color photographs of covered bridges as well as black and white etchings, *bas relief* renderings, books and a prized chalk picture done by his 13-year-old grandson which was published in the Lansing paper.

The only things he didn't bring were a large *bas relief* sculpture which hangs over his fireplace and his slides which were mislaid in a recent move.

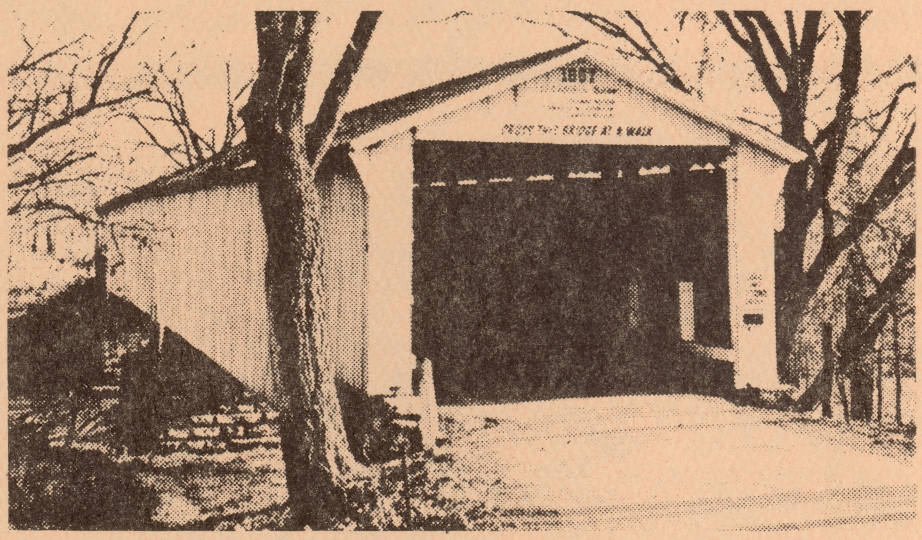
He saw his first covered bridge at a Sunday School picnic in Kent county. Later, as a young engineer he worked on repair of three of the state's five known remaining old covered bridges.

He graduated from Michigan State when it was a "college", not a "university", at the time the banks failed. He was broke and his wife paid for his diploma and cap and gown, he recalls. He knocked on about 35 doors before he could find a job.

Now he plans to retire next June after a 40-year career of road engineering, the past 11 of them in Washtenaw county where the only covered bridge is a recently constructed one on the U-M's Radrick Farms golf course not under his jurisdiction.

But earlier in his career he worked on repair of two old covered bridges in Kent county and one in Ionia county.

The Kent county bridges are near Grand Rapids at Ada and Fallasburg, north of Lowell. East and north of Grand Rapids in Ionia county is White's Bridge over the Flat River southwest of Smyrna. The Fallasburg Bridge also spans the Flat River while the Ada Bridge goes over the Thornapple River.



Courtesy of Clare Hoedeman

Mansfield Bridge over Big Raccoon Creek in Parke County, Indiana, one of 39 still in existence in that county. Sign says in part: "1867, J.I. Daniels, Builder, . . . Cross This Bridge at a Walk." Load limits posted lower right side of portal.

Michigan also has the Langley Covered Bridge over the St. Joseph River north of Centerville in St. Joseph county and one in Greenfield Village in Dearborn which Henry Ford had moved from Pennsylvania.

Covered bridges have often been called "kissing bridges" because horse and buggy days swains could steal a kiss in the privacy of the bridge. However, ladies alone often ran through the bridges in fear, he noted.

Today they seem to be favored fishing spots. One of the frustrations of a highway engineer is that fishermen keep tearing holes in the sides of covered bridges from which to fish, he said.

White's Bridge was built in 1845 for $250. After the original bridge washed out, the second builder wanted $1,000 to replace it. Upon inspection, it was found he had used used lumber and a drill hole was found in one of the planks for which $25 was deducted, he said.

Like many other bridges, White's Bridge was named for an early settler in the area. Others are named for the town where they are located, he noted.

Ohio originally had the most covered bridges, he said. Pennsylvania, where the covered bridge began, also had a lot. The first covered bridge in the United States was built in 1804 over the Schuylkill River at Philadelphia, he said.

A 1954 census of covered bridges, quoted in *American Barns and Covered Bridges* by Eric Sloane, showed 1,617 then in existence in 31 states. That included 26 railroad bridges whose location was not given. The top states were Pennsylvania with 390; Ohio, 349; Indiana-174; Oregon, 149; Vermont, fifth with 121; Alabama, 60; New Hampshire, 54; West Virginia, 52; Georgia, 50; Kentucky, 35; and New York, 33.

Hoedeman visited Parke County, Indiana, which has 39 covered bridges still in existence. The county, west of Indianapolis on the Illinois border, annually has an early fall Covered Bridge Festival.

During the festival there are guided tours but at other times the visitor may take self-guided tours with the help of information furnished at Rockville, the county

seat.

The county is divided into four quarters, he said. All four tours start from the town square. The guide books direct you by landmarks such as a windmill or oak tree or black house because the roads are unnamed yet today, he noted.

Hoedeman found Sloan's book, mentioned above, and another, *Covered Bridges of the Middlewest* by Richard Sanders Allen at Rockville. He projected illustrations from them on the screen to illustrate that covered bridges don't really all look alike and were not built alike.

Portals of some old bridges were arched with piers, others were "double-barreled" with two openings for two lanes of traffic or with a saltbox-style roof extending over pedestrian walkways. There were Greek revival-style portals and others with almost flat roofs, but generally, he noted, the roofs got steeper the farther north you went. That was to prevent heavy snow buildups, he said.

It was natural that bridges were built of wood back then. Iron and steel were not readily available and the bridge builders worked with what they had.

Braces were often of oak or yellow pine while soft white pine was often used for the floor to absorb moisture. Hard oak was used for pegs.

The list of materials and labor for a toll bridge in Gaylordsville, Connecticut in 1832, quoted by Sloan, lists:

4000 feet of two-inch oak floor planks	$100
1800 feet of long string pieces	$324
Mud sills of heavy chestnut timber	$ 25
Boards to cover the bridge	$ 60
Carpenter work complete	$400

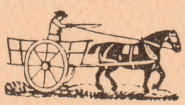
The final cost of that bridge was $1500.14, Sloan says. A replacement bridge built in 1876, after a washout some years before, cost $3,000.

Hoedeman showed pictures from Allen's book of several Michigan bridges no longer in existence. They included bridges in Lansing, Flint, Midland and Grand Rapids. Allen writes that Michigan "exported far more native white pine for bridges in other states than they ever used to span local streams."

Hoedeman recounted a story of how a Grand Rapids man wanting to demonstrate his steam-driven threshing machine in the city crossed the Leonard Street bridge. Sparks from the engine set the bridge afire. When he used another bridge to get back, the floor gave way.

Techniques for building a covered bridge were similar to building a barn, he noted. "A barn is a short span." Bracing in barns was similar to simple bridge trusses.

The earliest bridges had been "corduroy" — logs laid over supporting timbers, he said. Longer bridges required more elaborate and stronger design.



Bridges were strengthened by triangular braces or trusses. The simplest is the kingpost truss — a triangle with a vertical post to the peak. Longer bridges used another upright resulting in a four-sided queenpost truss with triangular bracing. (The queenpost truss is familiar in old steel truss bridges.)

Before the first covered bridges some wooden bridges had boxed joints. One of these was Enoch Hale's 365-foot bridge over the Connecticut River at Bellows Falls, Vermont, built in 1785.

Boxing and covering were adopted to protect the wood and make the bridge last longer. There was no creosote or other wood preservatives then, Hoedeman commented.

An arched truss had been designed by Palladio in Europe in 1549 although it was not used. In 1812 in the United States, the celebrated "Colossus" bridge was designed by Lewis Wernwag after the Palladio principle. It was built across the Schuylkill River at Upper Ferry, later Fairmont, Pennsylvania. It burned in a spectacular fire in 1838.

Another unusual covered bridge pictured was one at Clark's Ferry, Pennsylvania, which stretched 2,088 feet over ten spans. A span is the length of a bridge between abutments or piers.

A number of different trusses were patented. The Warren truss simply substituted a cross or "X" bracing for the inverted "V" in the middle of an ordinary queenpost truss. The Burr Truss with a series of kingposts and braces added an arch and the Town truss was a lattice design. It was pinned together with wooden pins or treenails (pronounced *trunnels*).

The Howe truss of 1840 substituted vertical iron tension rods for the wooden uprights between "X" braces of the Long truss and was widely adopted by the railroads, he noted.

Most of the bridges in Parke County, Indiana, use the Burr arch truss, he said.

While iron and steel bridges came into use well before, some of the wooden covered bridges in Parke County were built as late as 1920.

Probably the newest covered wooden highway bridge to be built in the United States, is one near Lancaster, Pennsylvania. The old bridge there, built in 1848, was washed away in a flood resulting from Hurricane Agnes in 1972. Residents there fought for an exact replica.

The new bridge was featured on the cover of *American Roadbuilder Magazine's* May 1976 issue. Unlike most of the old covered bridges it was designed and built by a professional bridge building firm.

Most of the older builders were not trained engineers, he said. They were local builders unschooled in the problems of expansion and contraction and stresses involved and yet many of their bridges have held up for one hundred years or more if not destroyed by flood or fire.

MICHIGAN'S OLD COVERED BRIDGES

Ionia County — White's Bridge, one span, 120 feet, over the Flat River, southwest of Smyrna. Built 1869 using the rare Brown truss, similar to the Howe "X" panel truss but lighter with less timber.

Kent County — Bradfield Bridge over the Thornapple River at Ada, one span, 125 feet, built 1866, Brown truss.

— Fallasburg Park, over the Flat River north of Lowell, one span, 100 feet, built 1862, Brown truss.

St. Joseph County — Langley Bridge over St. Joseph River north of Centerville, three spans, 282 feet long, built 1887, Howe truss. Raised eight feet on abutments in 1910, when Sturgis power dam built. Refurbished 1950-51.

Wayne County — Ackley Bridge in Greenfield Village, Dearborn, over an artificial pond, one span, 75 feet, built in Pennsylvania in 1832, moved to Michigan by Henry Ford. Uses Burr arch truss.

Data from *Covered Bridges of the Middlewest* by Richard Sanders Allen, courtesy of Clare Hoedeman.

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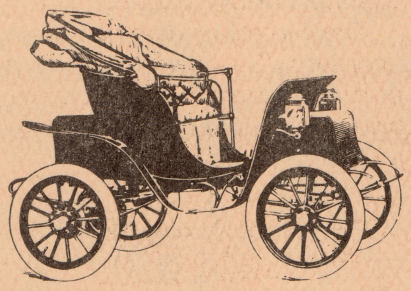
WASHTENAW HAS FOUR STEEL TRUSS BRIDGES

While the only covered bridge in Washtenaw County is a new one on the U-M's Radrick Farms Golf Course, the county still has four of the old steel truss bridges, Clare Hoedeman, chief engineer with the county road commission, said.

Three are over the Huron River, near W. Huron River Drive in each case — they are on N. Maple Road, E. Delhi Road and Bell Road. The fourth is on Maple Road south of Saline, crossing the Saline River.

Two steel truss bridges have been removed in the past year. One was on the old Geddes Road causeway across the river, now Gallup Park Drive, the other over the Huron on Mast Road at Dexter.



SECTION LAUNCHES STUDY OF GENEALOGY, FEBRUARY 27

The Genealogy Section of WCHS will begin a two-part series of programs on "The Study of Genealogy" at 2:30 p.m., Sunday, February 27.

The meeting will be at the home of Professor and Mrs. Leigh C. Anderson, 1120 Lincoln, Ann Arbor. Mrs. Anderson will lead the discussion which is open to anyone interested in getting started on family history as well as more advanced researchers.

As usual a help session starts at 1:00 p.m. The group's library will be available for use, and charts and the Arnold Pilling book on dating old photographs will be on sale. The latter book is their own publication.

DEXTER MUSEUM PLANS PUBLIC VIEWING HOURS

Beginning Saturday, March 12, the Dexter Historical Museum will be open to the public on the second Saturday of each month from 1:00 to 3:00 p.m. and every Tuesday from 1:00 to 3:00 p.m., Norma McAllister, president of the society, announced.

Besides the museum, the reading room and gift shop will be open then. The reading room has some genealogies and histories of local businesses and schools. During the summer the museum is to be open also on the fourth Saturday of the month. Visits at other times are by appointment.

Washtenaw Historical Society Meeting

THURSDAY

8:00 P.M.

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